The undersigned attorney wishes to thank the Examiner for the courtesies extended during the personal interview held on February 24, 1995. The interview was very helpful in identifying those issues which are addressed herein.

The claims were rejected under 35 U.S.C. §112, for failure to provide an enabling description. The rejection asserts that the specification does not adequately disclose the V1-1 propeptide sequence, or expression of V1-1 using vectors with a heterologous propeptide. The specification clearly teaches that the sequences of numerous BMP proteins and other TGF-β proteins are known in the art. The skilled artisan is familiar with the TGF-β family of proteins, and is sufficiently knowledgeable to be able to construct a chimeric vector ligating the DNA sequence encoding the propeptide of a known BMP to the coding sequence of the mature V1-1 protein with a reasonable expectation that the chimeric construct would successfully express the V1-1 protein in mammalian cells.

As evidence of the above, Applicants submit herewith copies of United States Patent No. 5,168,050 and Thomsen and Melton, *Cell* 74:433-441 (1993) and Dale *et al.*, *EMBO J.* 12:4471 (1993). In United States Patent 5,168,050, a chimeric construct was made in which the propeptide from BMP-2 was ligated to the coding sequence of the mature BMP-4 protein, and BMP-4 protein was said to be successfully isolated. In Thomsen and Melton, the authors describe construction of a chimeric DNA molecule in which Vg1 protein [a TGF-β protein isolated from *Xenopus* (frog)] was expressed using a chimeric BMP-2/Vg1 DNA molecule. [see

p. 433, 2d column]. Dale *et al.*, *EMBO J.*, 12 (1993) similarly describes a chimeric vector in which the propeptide from *Xenopus* BMP-4 was ligated to the mature coding region for Vg1. The resulting protein was properly expressed and refolded. [see page 4474, 2d column to 4475 1st column]. Thus, undue experimentation would not be required in order for one to prepare a chimeric vector expressing Applicants' V1-1 related protein. Accordingly, this ground of rejection should be withdrawn.

The Examiner objected to the recitation of "V1-1 related protein". This term is clearly defined in the specification. See for example, page 2, lines 4 to 19; page 2, line 19 to page 3, line 7; and page 8, lines 1 to 16. However, in the interest of expediting prosecution, Applicants have submitted new claims 29 to 41, which recite DNA molecules having a nucleotide sequence disclosed in SEQUENCE ID NO: 1; DNA molecules encoding an amino acid sequence disclosed in SEQUENCE ID NO: 2; and equivalents thereof, all of which are further defined by their ability to induce tendon/ligament-like tissue in the assays described in the specification. Accordingly, the new claims are not subject to this ground of rejection.

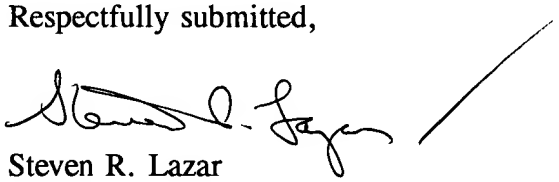
The claims have also been rejected under 35 U.S.C. §102(a) as being anticipated by Neidhardt et al. WO93/16099. The new claims recite sequences disclosed in SEQUENCE ID NO: 1 or SEQUENCE ID NO:2. Applicants submit herewith a figure which the undersigned affirms to be a comparison of the MP52 nucleotide and amino acid sequences disclosed in Neidhardt with those of SEQUENCE ID NO:1 and 2. The differences are highlighted. This

figure clearly demonstrates that there is no anticipation. Accordingly, this rejection should be withdrawn. Although it is believed that the undersigned's representation should be sufficient, Applicants will submit the figure as exhibit to a declaration, if the Examiner requires.

The claims have also been provisionally rejected over the copending application Serial No. 08/164,102 [s.i.c., 08/164,103]. applicants advise that this parent application was expressly abandoned on October 20, 1994. Thus, the double patenting rejection has been obviated.

While it is believed that no fee is due with this response, Applicant hereby authorizes the Examiner to charge payment of any fees due in this application to Deposit Account No. 07-1060.

Respectfully submitted,



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